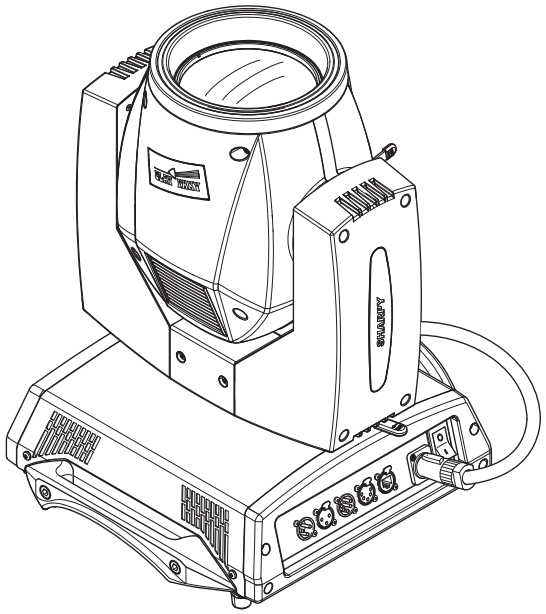
CLAY PAKY®
www.claypaky.it

SHARPY

C61375

INSTRUCTION MANUAL



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Congratulations on choosing a Clay Paky product!
We thank you for your custom.
Please note that this product, as all the others in the rich Clay Paky range, has been designed and made with total quality to ensure excellent performance and best meet your expectations and requirements.

Carefully read this instruction manual in its entirety and keep it safe for future reference. It is essential to know the information and comply with the instructions given in this manual to ensure the fitting is installed, used and serviced correctly and safely.

CLAY PAKY S.p.A. disclaims all liability for damage to the fitting or to other property or persons deriving from installation, use and maintenance that have not been carried out in conformity with this instruction manual, which must always accompany the fitting.

CLAY PAKY S.p.A. reserves the right to modify the characteristics stated in this instruction manual at any time and without prior notice.

SAFETY INFORMATION

• Installation
Make sure all parts for fixing the projector are in a good state of repair.
Make sure the point of anchorage is stable before positioning the projector.
The safety chain must be properly hooked onto the fitting and secured to the framework, so that, if the primary support system fails, the fitting falls as little as possible.
If the safety chain gets used, it needs to be replaced with a genuine spare.

• MINIMUM DISTANCE OF ILLUMINATED OBJECTS
The projector needs to be positioned so that the objects hit by the beam of light are at least 12 metres (39'4") from the lens of the projector.

• Minimum distance from flammable materials
The projector must be positioned so that any flammable materials are at least 0.20 metres (8") from every point on the surface of the fitting.

• Mounting surfaces
It is permissible to mount the fitting on normally flammable surfaces.

t_a 40°C

• Maximum ambient temperature
Do not operate the fixture if the ambient temperature (Ta) exceeds 40° C (104° F).

IP20

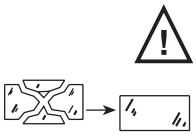
• IP20 protection rating
The fitting is protected against penetration by solid bodies of over 12mm (0.47") in diameter (first digit 2), but not against dripping water, rain, splashes or jets of water (second digit 0).

• Protection against electrical shock
Connection must be made to a power supply system fitted with efficient earthing (**Class I** appliance according to standard EN 60598-1).
It is, moreover, recommended to protect the supply lines of the projectors from indirect contact and/or shorting to earth by using appropriately sized residual current devices.

• Connection to mains supply
Connection to the electricity mains must be carried out by a qualified electrical installer.
Check that the mains frequency and voltage correspond to those for which the projector is designed as given on the electrical data label.
This label also gives the input power to which you need to refer to evaluate the maximum number of fittings to connect to the electricity line, in order to avoid overloading.

t_c 100°C

• Temperature of the external surface
The maximum temperature that can be reached on the external surface of the fitting, in a thermally steady state, is 100°C (212°F).



• Maintenance
Before starting any maintenance work or cleaning the projector, cut off power from the mains supply.
After switching off, do not remove any parts of the fitting, to avoid getting burnt for at least 35 minutes. After this time the likelihood of the lamp exploding is virtually nill.
The fitting is designed to hold in any splinters produced by a lamp exploding. The lenses must be mounted and, if visibly damaged, they have to be replaced with genuine spares.

• Lamp
The fitting mounts a high-pressure lamp that needs an external igniter. This igniter is fitted onto the apparatus.
- Carefully read the "operating instructions" provided by the lamp manufacturer.
- Immediately replace the lamp if damaged or deformed by heat.

Pb

• Battery
This product contains a rechargeable lead-acid battery. To preserve the environment, please dispose the battery at the end of its life according to the regulation in force. Instructions on how to remove the battery from the product are available on **www.claypaky.it**

CE

The products referred to in this manual conform to the European Community Directives to which they are subject:
• Low Voltage 2006/95/CE
• Electromagnetic Compatibility 2004/108/CE

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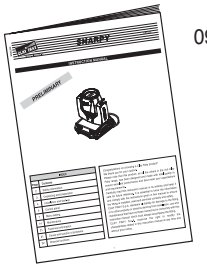

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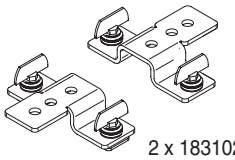
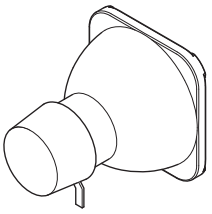


2 x 183102/802

Lamp 189W
(fitted into projector)



Packing contents - Fig. 1

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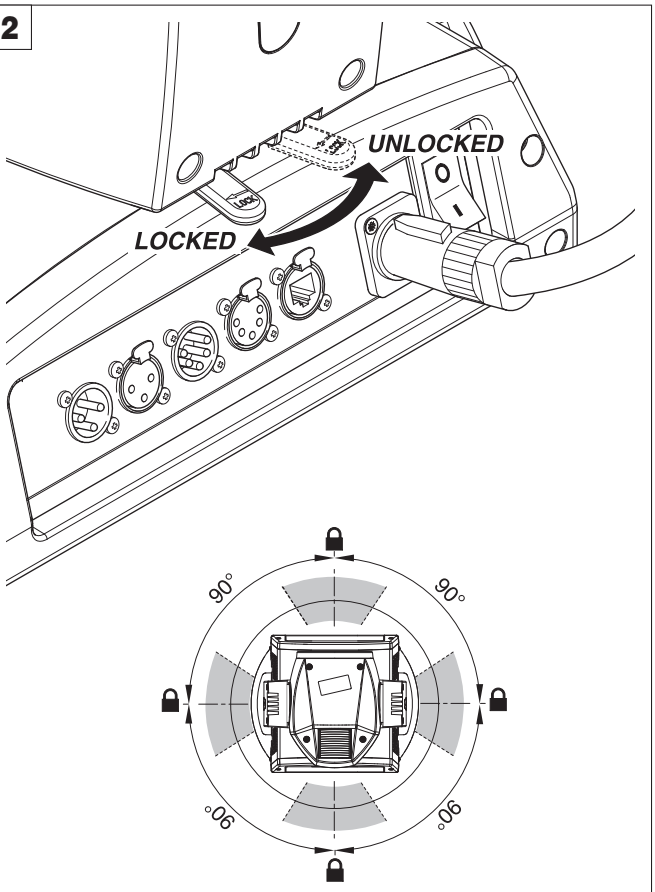

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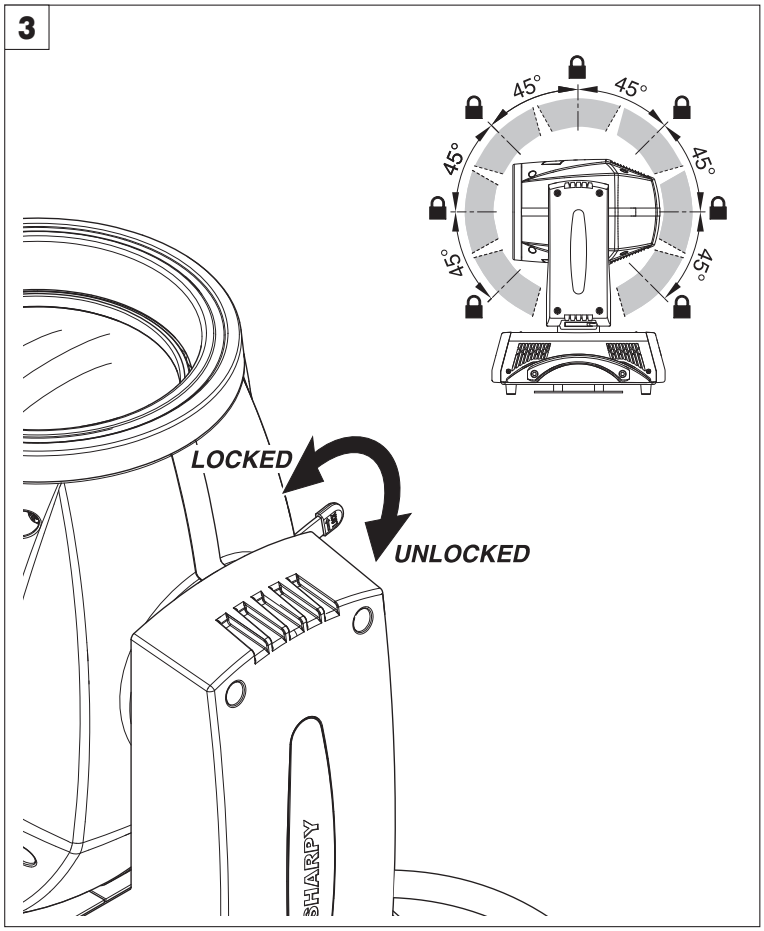
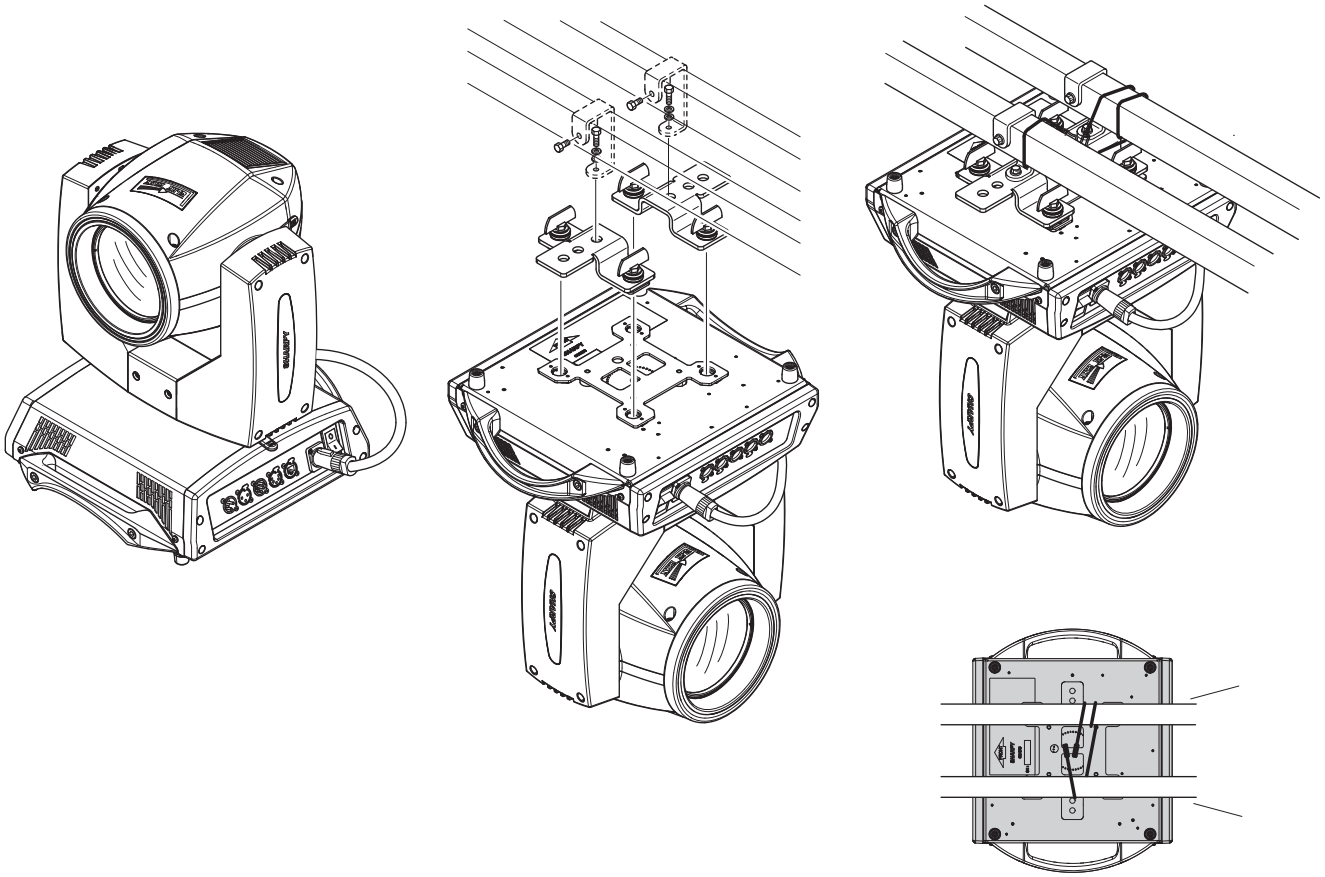


PAN Mechanism Lock and Release (every 90°) - Fig. 2

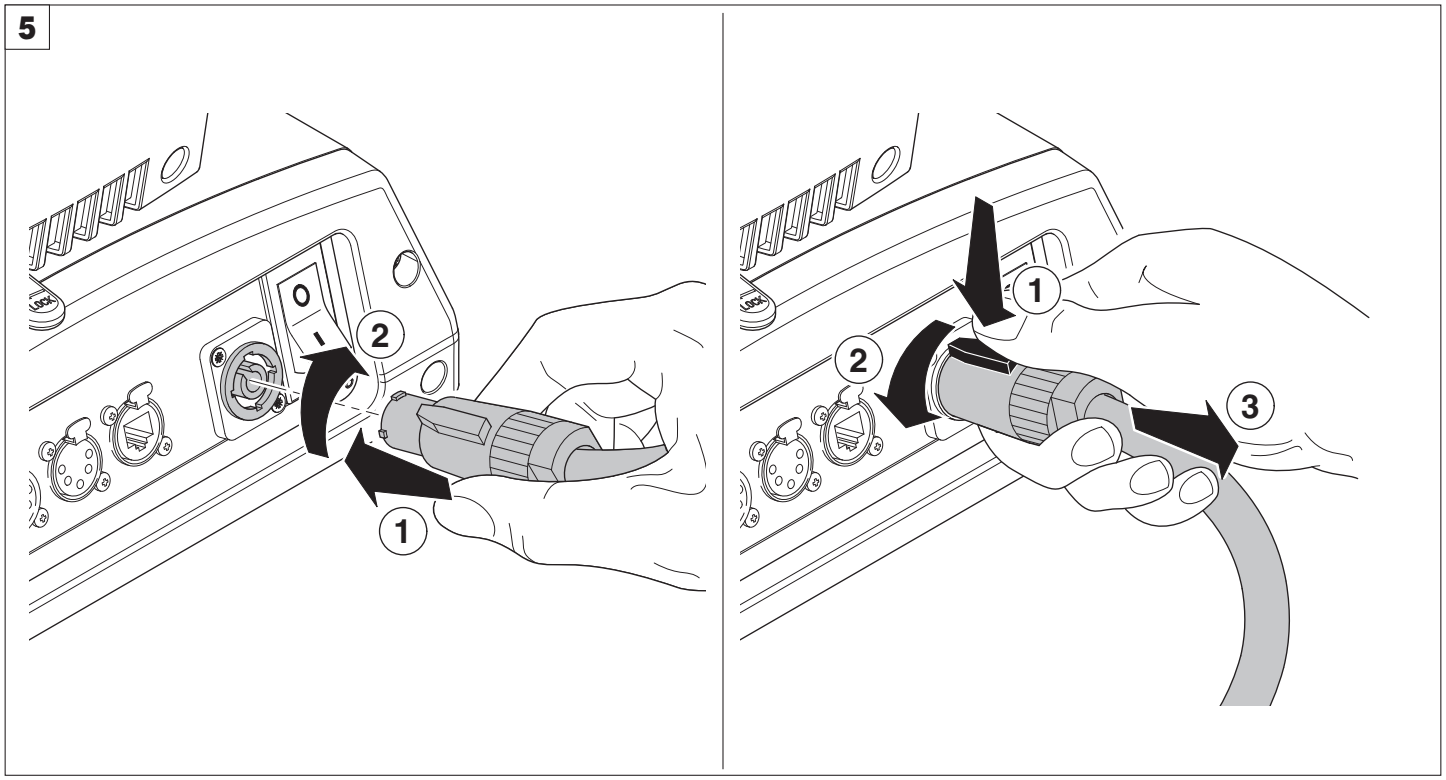
TILT Mechanism Lock and Release (every 45°) - Fig. 3

4



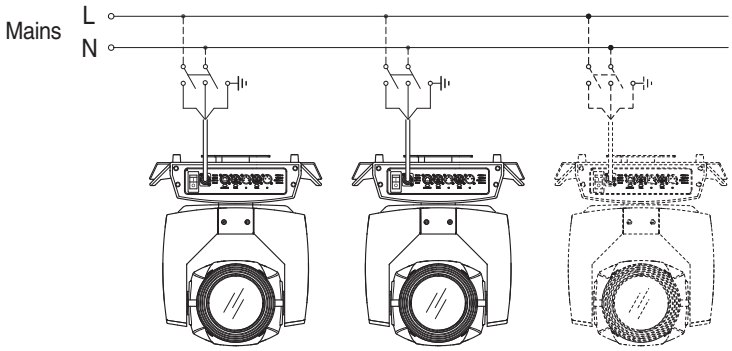
Installing the projector - Fig. 4
The projector can be installed on the floor resting on special rubber feet, on a truss or on the ceiling or wall.
WARNING: ***with the exception of when the projector is positioned on the floor, the safety cable must be fitted. (Cod. 105041/003 available on request). This must be securely fixed to the support structure of the projector and then connected to the fixing point at the centre of the base.***

5



Connecting and disconnecting power cable - Fig. 5

6



Connecting to the mains supply - Fig. 6

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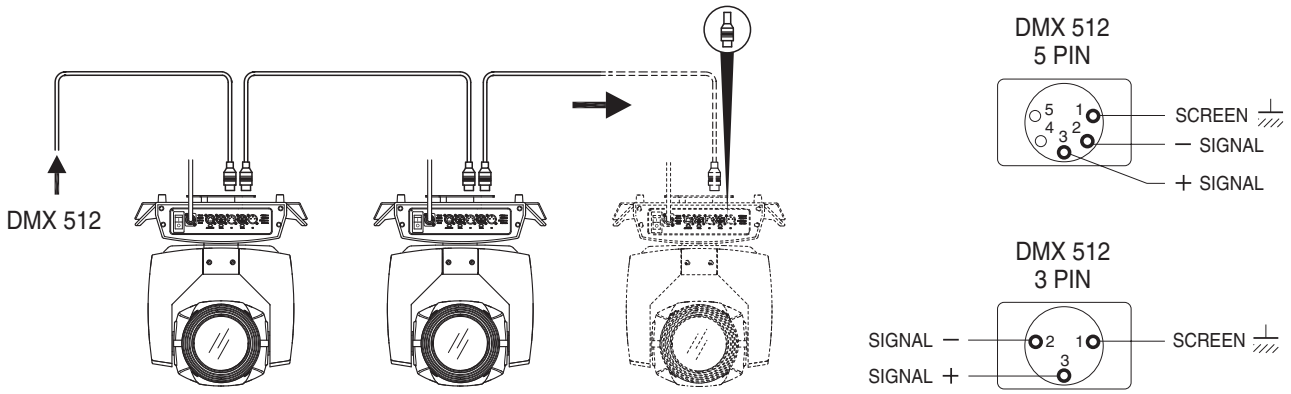
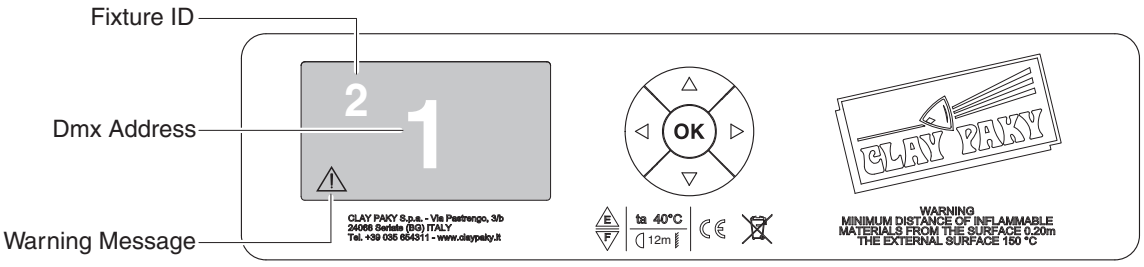


Connecting to the control signal line (DMX) - Fig. 7

Use a cable conforming to specifications EIA RS-485: 2-pole twisted, shielded, 120Ohm characteristic impedance, 22-24 AWG, low capacity. Do not use microphone cable or other cable with characteristics differing from those specified. The end connections must be made using XLR type 3 or 5-pin male/female connectors. A terminating plug must be inserted into the last projector with a resistance of 120Ohm (minimum 1/4 W) between terminals 2 and 3.

IMPORTANT: The wires must not make contact with each other or with the metal casing of the connectors. The casing itself must be connected to the shield braid and to pin 1 of the connectors.

8



Switching on the projector - Fig. 8

Press the switch. The projector starts resetting the effects. At the same time, the following information scrolls on the display:

CLAY PAKY	**Model** **SHARPY**	**Firmware** **Version X.X.X** **Date - Hour**	**xxx (Fixture ID)** **Dmx Address xxx**	**System errors** **E: .....** **W: ..... **

On conclusion of resetting in case of absence of the dmx signal, Pan and Tilt move to the “Home” position (Pan 50% - Tilt 50%). The control panel (Fig. 8) has a display and buttons for the complete programming and management of the projector menu. The display can be in one of two conditions: rest status and setting status. When it is in the rest status, the display shows the projector’s DMX address and the Fixture ID address (if set).

During menu setting status, after a wait time (about 30 seconds) without any key having been pressed, the display automatically returns to rest status. It should be noted than when this condition occurs, any possible value that has been modified but not yet confirmed with the OK key will be cancelled.

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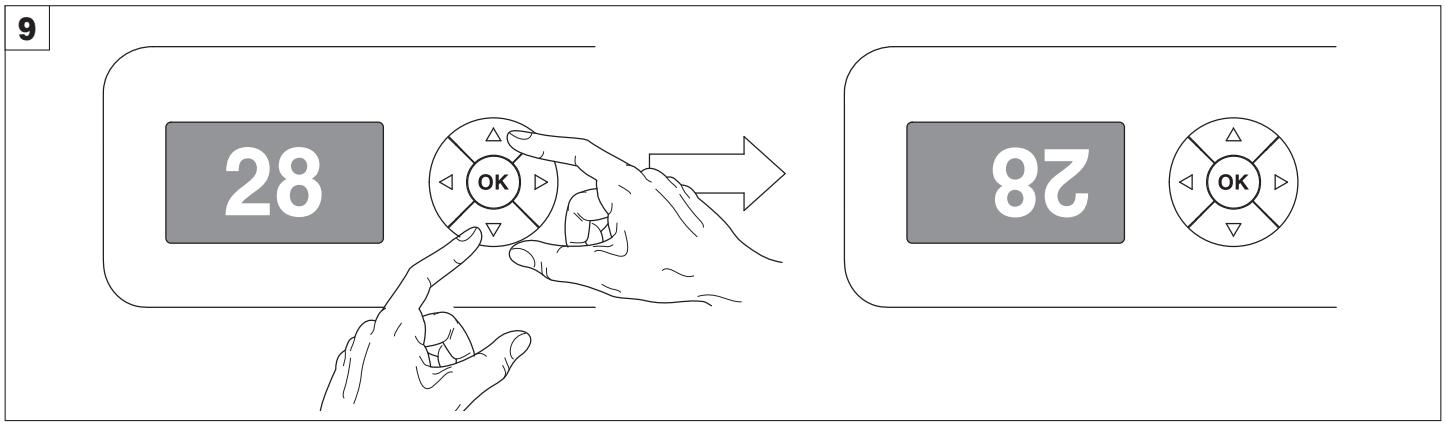


Reversal of the display - Fig. 9

To activate this function, press UP ⊕ and DOWN ⊖ keys simultaneously while the display is in the rest mode. This status will be memorised and maintained even for the next time it will be switched on. To return to the initial state, repeat the operation all over again.

Setting the projector starting address

On each projector, the starting address must be set for the control signal (addresses from 1 to 512).

The address can also be set with the projector switched off.

Setting the address: see pag. 8.

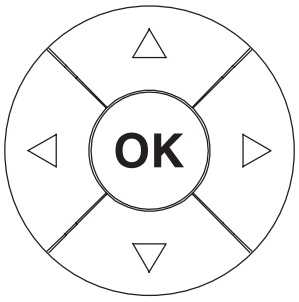
Setting the projector Fixture ID

On each projector, the Fixture ID address must be set for an easy identification of the fixtures in an installation (ID from 1 to 255).

The Fixture ID address can be set with the projector switched off.

Setting the Fixture ID: see pag. 8.

Functions of the buttons - Using the menu



OK	Confirms the displayed value, or activates the displayed function, or enters the successive menu.
DOWN	Decreases the value displayed (with auto-repetitions) or passes to the next item in the menu.
UP	Increases the value displayed (with auto-repetitions) or passes to the previous item in a menu.
LEFT	Return to the top level
RIGHT	Commute from units, tens, hundreds, in the "Address", "Fixture ID" and "Calibration" menù.

USING THE MENU:

1) Press OK once – “Main Menu” appears on the display.
2) Use the UP ⊕ and DOWN ⊖ keys to select the menu to be used:
   - Setup (Setup Menu): To set the setting options.
   - Option (Option Menu): To set the operating options
   - Informations (Informations Menu): To read the counters, software version and other information.
   - Manual Control (Manual control Menu): To trigger the test and manual control functions.
   - Test (Test Menu): To check the proper functionning of effects
   - Advanced (Advanced Menu): Access to the "Advanced menu" is recommended for a trained technical personnel.

   To enable the "Advanced" see pag.13
3) Press OK to display the first item in the selected menu.
4) Use the UP ⊕ and DOWN ⊖ keys to select the MENU items.

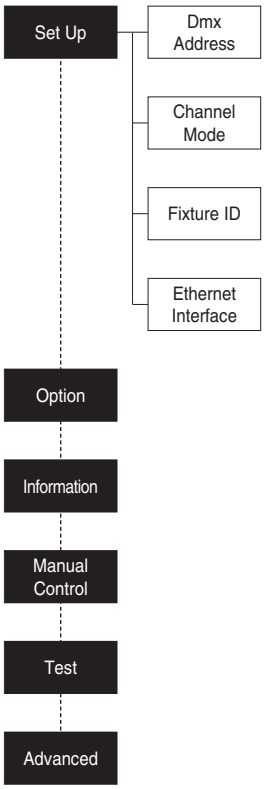
Setting addresses and options with the projector disconnected

The projector’s DMX address, as well as other possible operating options, can also be set when the appliance is disconnected from the electricity supply. All that is needed is to press OK to momentarily activate the display and thus access the settings. Once the required operations have been carried out, the display will switch off again after a wait time of 30 seconds.

MENU SETTING

MAIN MENU

1



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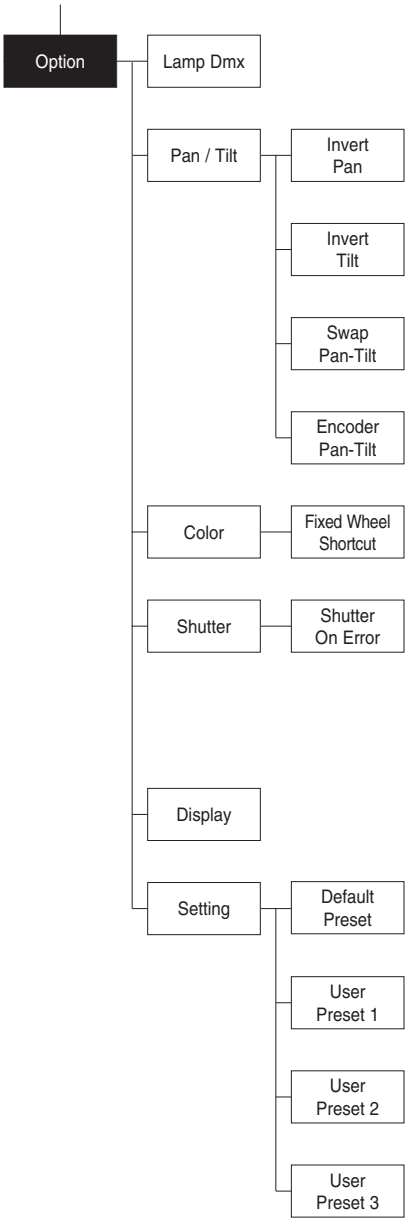

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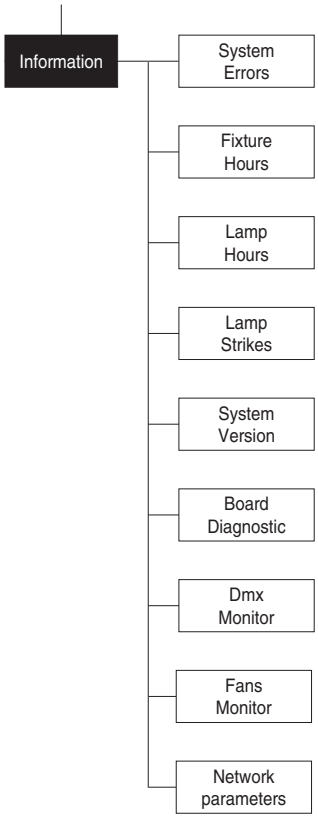

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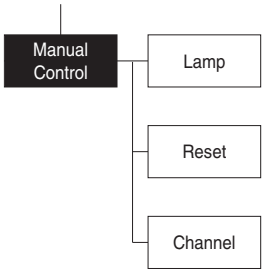

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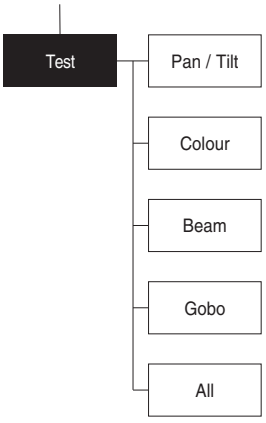

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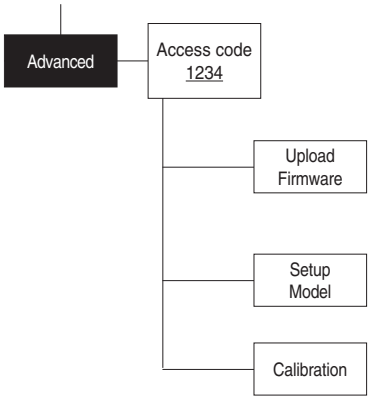

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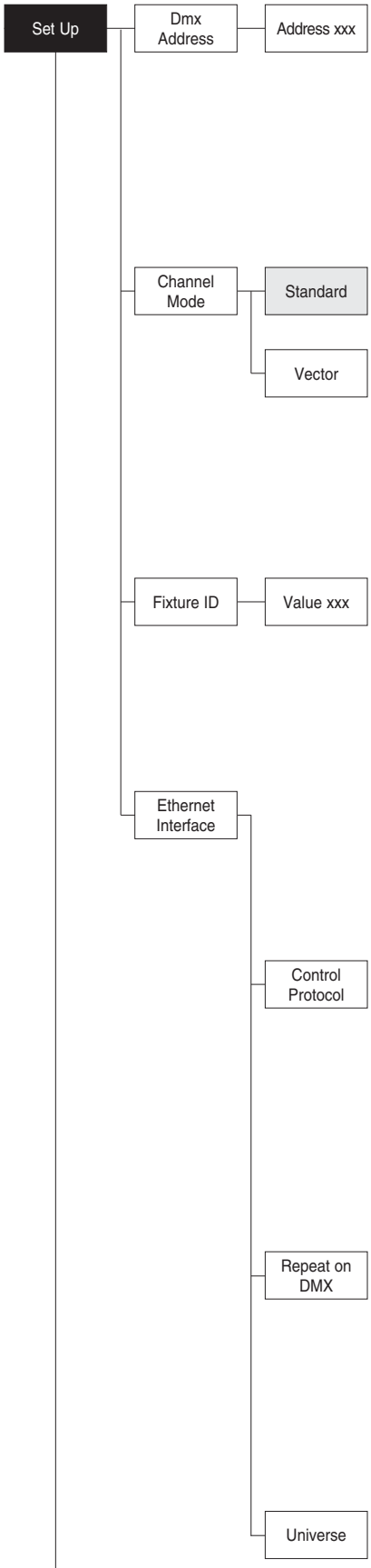
NOTE: On grey the default options



SET UP MENU

DMX ADDRESS

NOTE: without the DMX signal the Address (XXX) flashing

Allows you to select the DMX ADDRESS.

1) Press (OK) - the current DMX Adress appear on the display.
2) Use the UP (▲) and DOWN (▼), RIGHT (►) keys to plan the DMX Address.
3) Press (OK) to confirm the selection or LEFT (◄) to keep current settings.

CHANNEL MODE

Allows you to select a channel arrangement from the two available.

1) Press (OK) - the current settings appear on the display (Standard or Vector).
2) Use the UP (▲) and DOWN (▼) keys to select one of the following settings:
   - Standard
   - Vector
3) Press (OK) to confirm the selection or LEFT (◄) to keep current settings.

FIXTURE ID

Allows you to select the FIXTURE ID.

1) Press (OK) - the current Fixture ID appear on the display.
2) Use the UP (▲), DOWN (▼), RIGHT (►) keys to plan the Fixture ID.
3) Press (OK) to confirm the selection or LEFT (◄) to keep current settings.

ETHERNET INTERFACE

It lets you set the Ethernet settings to be attributed to the projector.

1) Premere (OK).
2) Use the UP (▲) and DOWN (▼) keys to select the “Ethernet Interface” options to set:

Control Protocol

It lets you select the “Control Protocol” Art-net to assign according to the control unit used:

1) Press (OK) the current setting appears on the display.
2) Use the UP (▲) and DOWN (▼) keys to select one of the following settings:
   - Disabled
   - Art-net on IP 2
   - Art-net on IP 10
3) Press (OK) to confirm the selection or LEFT (◄) to keep the current setting.

Repeat on DMX

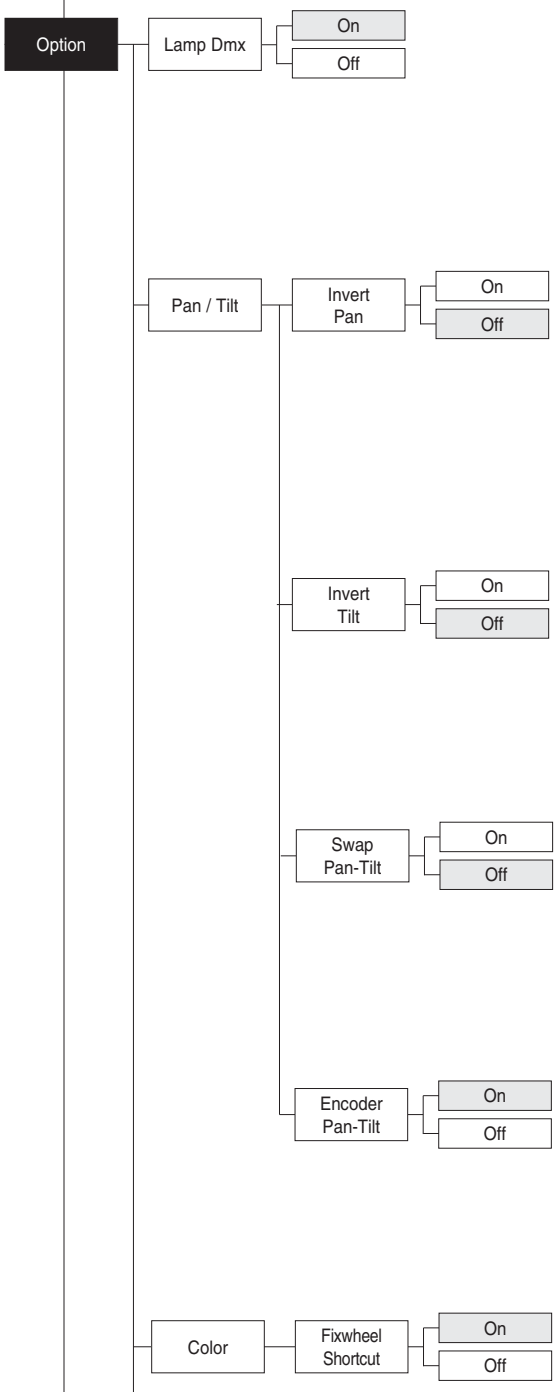
It lets you enable the transmission of the Ethernet protocol by DMX signal to all the connected projectors.

1) Press (OK) the current setting appears on the display.
2) Use the UP (▲) and DOWN (▼) keys to select one of the following settings:
   - **Disabled:** DMX transmission disabled.
   - **Enabled on primary:** DMX transmission enabled.
3) Press (OK) to confirm the selection or LEFT (◄) to keep the current setting.

Universe

It lets you assign the “Universe” number to be assigned to a series of projectors.

1) Press (OK) – the current Universe address appears on the display.
2) Use the UP (▲), DOWN (▼), RIGHT (►) keys to set the Universe address.
3) Press (OK) to confirm the selection or LEFT (◄) to keep the current setting.



OPTIONS MENU

LAMP DMX

Used for enabling lamp remote control channel.

1) Press OK - the current settings appear on the display (On or Off).
2) Use the UP ▲ and DOWN ▼ keys to enable (On) or disable (Off) the lamp remote control channel.
3) Press OK to confirm the selection or LEFT ◀ to keep current settings.

PAN / TILT

Invert pan

Used for reversing Pan movement.

1) Press OK - the current settings appear on the display (On or Off).
2) Use the UP ▲ and DOWN ▼ keys to enable (On) or disable (Off) PAN inversion.
3) Press OK to confirm the selection or LEFT ◀ to keep current settings.

Invert tilt

Used for reversing tilt movement.

1) Press OK - the current settings appear on the display (On or Off).
2) Use the UP ▲ and DOWN ▼ keys to enable (On) or disable (Off) Tilt inversion.
3) Press OK to confirm the selection or LEFT ◀ to keep current settings.

Swap Pan-Tilt

Used for swapping Pan and Tilt channels (as well as Pan fine and Tilt fine).

1) Press OK - the current settings appear on the display (On or Off).
2) Use the UP ▲ and DOWN ▼ keys to enable (On) or disable (Off) Pan and Tilt channel swap.
3) Press OK to confirm the selection or LEFT ◀ to keep current settings.

Encoder Pan-Tilt

Used for enabling the Pan / Tilt encoders.

1) Press OK - the current settings appear on the display (On or Off).
2) Use the UP ▲ and DOWN ▼ keys to enable (On) or disable (Off) Pan / Tilt encoders.
3) Press OK to confirm the selection or LEFT ◀ to keep current settings.

COLOR

Fixed wheel short-cut

Used for optimizing color change time so that the disc turns in the direction that requires shorter movement.

1) Press OK – the current settings appear on the display (On or Off).
2) Use the UP ▲ and DOWN ▼ keys to enable (On) or disable (Off) color change optimization.
3) Press OK to confirm the selection, or LEFT ◀ to keep current settings.

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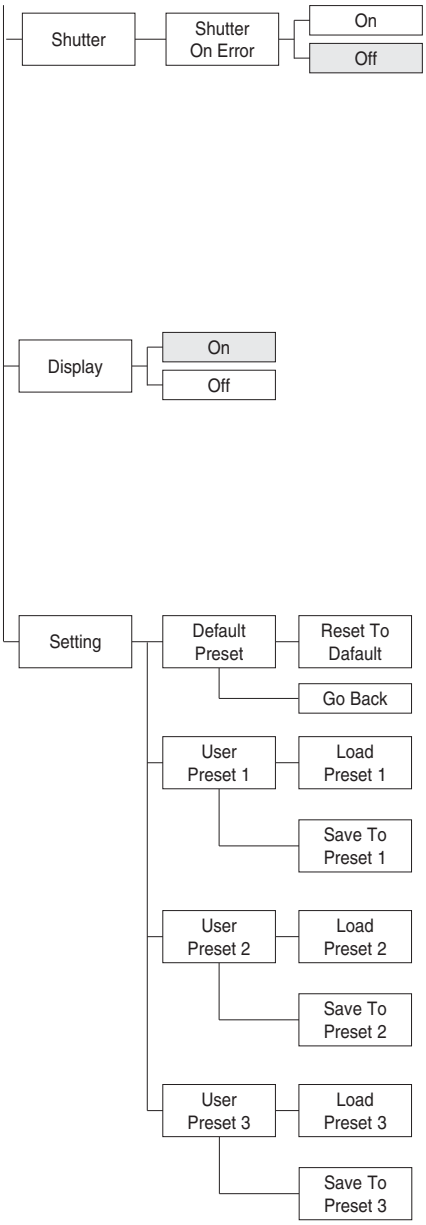


SHUTTER

Shutter on error

Used for automatically closing the stop/strobe in the event of Pan/Tilt position error.

1) Press (OK) - the current settings appear on the display (On or Off).
2) Use the UP (▲) and DOWN (▼) keys to enable (On) or disable (Off) automatic stop/strobe closing in the event of Pan/Tilt position error.
3) Press (OK) to confirm the selection, or LEFT (◀) to keep current settings.

DISPLAY

Used for automatically reduce brightness on the display after about 30 seconds in idle.

1) Press (OK) - the current settings appear on the display (On or Off).
2) Use the UP (▲) and DOWN (▼) keys to enable (On) or disable (Off) the decreasing of display brightness.
3) Press (OK) to confirm the selection or LEFT (◀) to keep current settings.

SETTING

Used to save 3 different settings of the items in the options menu and relative submenus.

1) Press (OK) - “Default preset” appears on the display.
2) Use the UP (▲) and DOWN (▼) keys to select one of the following configurations:
   - Default preset (*)
   - User preset 1
   - User preset 2
   - User Preset 3
3) Press (OK) - “Load preset X” appears on the display.
4) Use the UP (▲) and DOWN (▼) keys to select:
   - Load preset X to recall a previously stored configuration.
   - Save to preset X to store the current configuration.

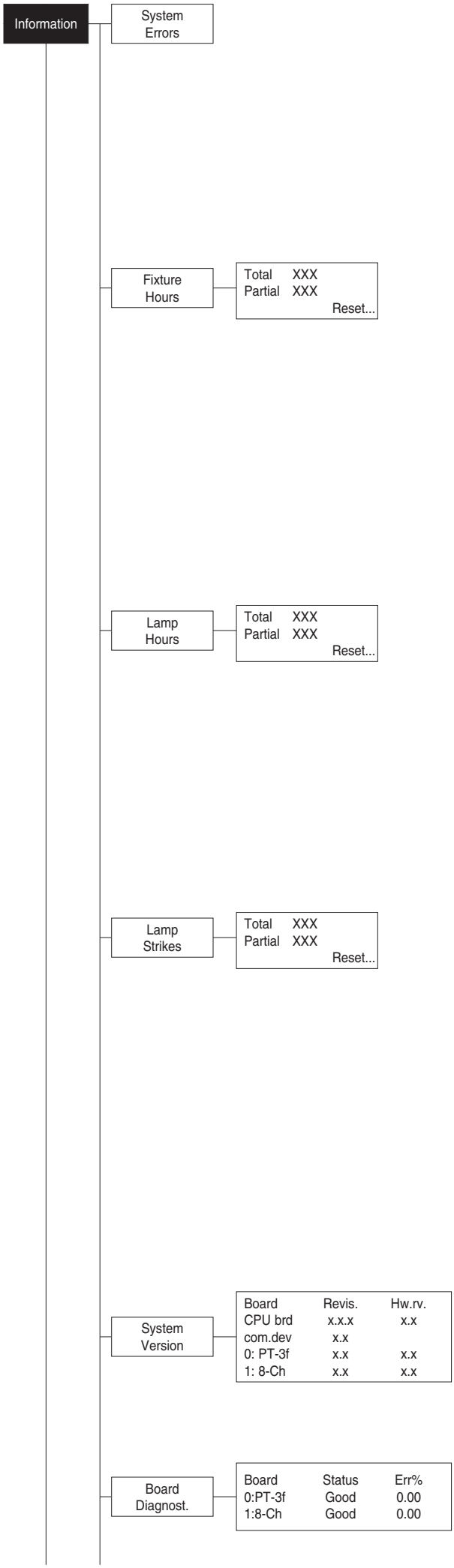
   a confirmation message (Are you sure?) appears on the display.
5) Select YES to confirm the selection or NO to keep the current setting and return to the next higher level.

(*) DEFAULT PRESET

Used for restoring default values on all options menu items and relevant submenus.

1) Press (OK), a confirmation message (Are you sure?) appears on the display.
2) Select YES to confirm the selction or NO to keep current setting.

OPTION	DEFAULT
Lamp DMX	On
Invert Pan	Off
Invert Tilt	Off
Swap Pan-Tilt	Off
Encoder Pan-Tilt	On
Fixed Wheel Shortcut	On
Shutter on error	Off
Display	On



INFORMATION MENU

SYSTEM ERRORS

Shows a list of warnings and messages relevant to errors occurred since the fixtures switching-on.

1) Pressing (OK) you are allowed to reset the SYSTEM ERRORS list. A confirmation message (Are you sure you want to clear error list ?) appears on the display.
2) Select YES to reset the list or NO to go back.

FIXTURE HOURS

Used for displaying projector operating hours (total and partial).

1) Press (OK) - Hours total and partial appears on the display.
   Total counter
   Counts the number of projector working life hours (from manufacture to date).
   Partial counter
   Counts the number of partial projector working life hours since the last reset to date.
2) Press (OK) to reset partial projector working hours a confirmation message (Are you sure?) appears on the display.
3) Select YES to reset partial projectors counter or NO to keep the current setting and return to the top menu level.

LAMP HOURS

Used for displaying the lamp working hours (total and partial).

1) Press (OK) - Hours total and partial appears on the display.
   Total counter
   Counts the number of projector working hours with the lamp on (from manufacture to date).
   Partial counter
   Counts the number of lamp working hours since the last reset to date.
2) Press (OK) to reset partial lamp working hours, a confirmation message (Are you sure ?) appears on the display.
3) Select YES to reset partial counter or NO to keep the current setting and return to the top menu level

LAMP STRIKES

Used for displaying the number of times the lamp was turned on (total and partial).

1) Press (OK) - the number of times the lamp was turned on (total and partial) appears on the display.
   Total counter
   Counts the number of times the lamp was turned on (from manufacture to date).
   Partial counter
   Counts the number of times the lamp was turned on since the last reset to date.
2) Press (OK) to reset partial lamp strikes hours, a confirmation message (Are you sure ?) appears on the display.
3) Select YES to reset partial counter or NO to keep the current setting and return to the top menu level

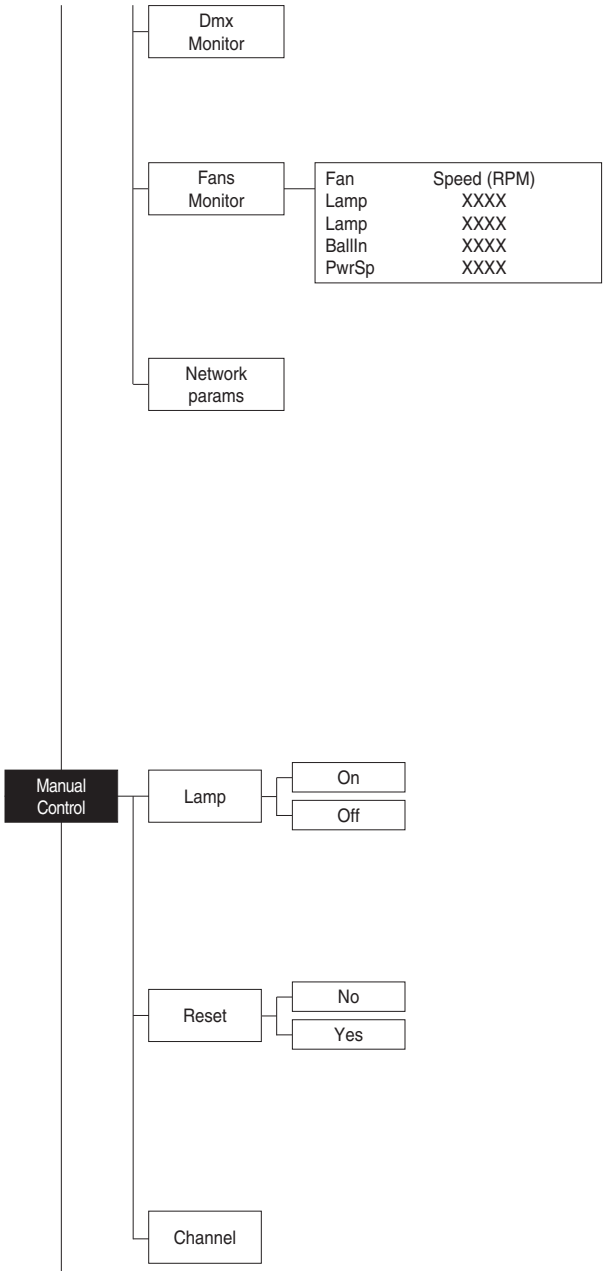
SYSTEM VERSION

Used for displaying the software and hardware version of each board installed in the projector.
CPU brd (CPU board)
0: PT-3f (Pan / Tilt board)
1: 8-Ch (8 channel board)

BOARD DIAGNOSTIC

Used for displaying the status error of each board installed in the projector:
0: PT-3f (Pan / Tilt board)
1: 8-Ch (8 channel board)

Continue →



DMX MONITOR

Used for displaying the projector DMX channel level in bit (Val) and in percentage (Perc).

FANS MONITOR

Used for displaying the speed of each fan installed in the projector:
Lamp (Lamp Fan)
Ball. IN (Ballast IN Fan)
PwrSp (Power Supply Fan)

NETWORK PARAMS

Allows the "Network" parameters of the projector to be displayed or:

IP address: Internet Protocol address (two projectors must not have the same IP address)

IP mask: 255.0.0.0

Mac address: Media Access Control: the projector's Ethernet Address

MANUAL CONTROL

LAMP

Used for turning lamp on and off from the projector control panel.

1) Press (OK) - the current settings appear on the display (On or Off).
2) Use the UP (▲) and DOWN (▼) keys to turn the lamp on (On) or off (Off)
3) Press (OK) to confirm the selection or LEFT (◀) to keep current settings and return to the top level.

RESET

Used for resetting the projector.

1) Press (OK) to reset the projectors, a confirmation message (Are you sure ?) appears on the display.
2) Select YES to starting reset the fixture or NO to keep the current setting and return to the top menu level.

CHANNEL

Used for setting channel levels from the projector control panel.

1) Press (OK) - the first channel appears on the display.
2) Use the UP (▲) and DOWN (▼) keys to select the required channel:
3) Press (OK) and use the UP (▲) and DOWN (▼) keys to select the required DMX level (value between 0 and 255).
4) Press LEFT (◀) to return to the top menu level.

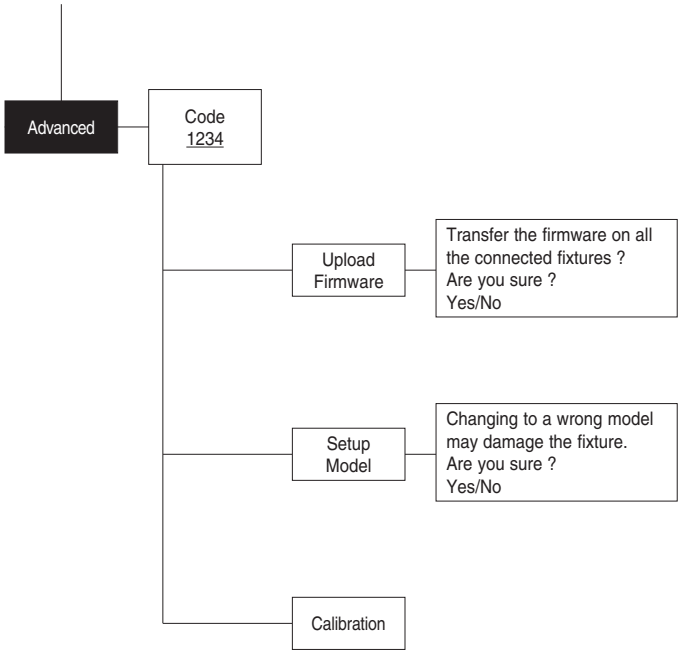
TEST MENU

TEST

Allows you to check the proper functioning of effects.

1) Press (OK) to return to the top menu level.
2) Use the UP (▲) and DOWN (▼) keys to select the required test.
3) Press (OK) to confirm the selection or LEFT (◀) to keep current settings.

Test sequence:
Pan - Tilt effects (Pan & Tilt)
Colour effects (Colour wheel)
Beam effects (Stopper-Strobe / Dimmer / Prism / Frost)
Gobo effects (Static gobo)
All effects



ADVANCED MENU

To enable the "Advanced Menu" set up the "Access code" (1234) using the UP ⏶, DOWN ⏷, RIGHT ⏵ keys.
Press OK - "Menu advanced" appears on the display

UP LOAD FIRMWARE

Allows you to transfer the firmware from 1 fixture to all the connected fixtures.

1) Press OK , a confirmation message appears on the display.
2) Select YES to start the firmware loading or NO to keep the current setting and return to the top menu level

SETUP MODEL

Allows you to change the default model of projector.

1) Press OK a confirmation message appears on the display.
2) Select YES to define the model of projector or NO to keep the current setting and return to the top menu level.

CALIBRATION

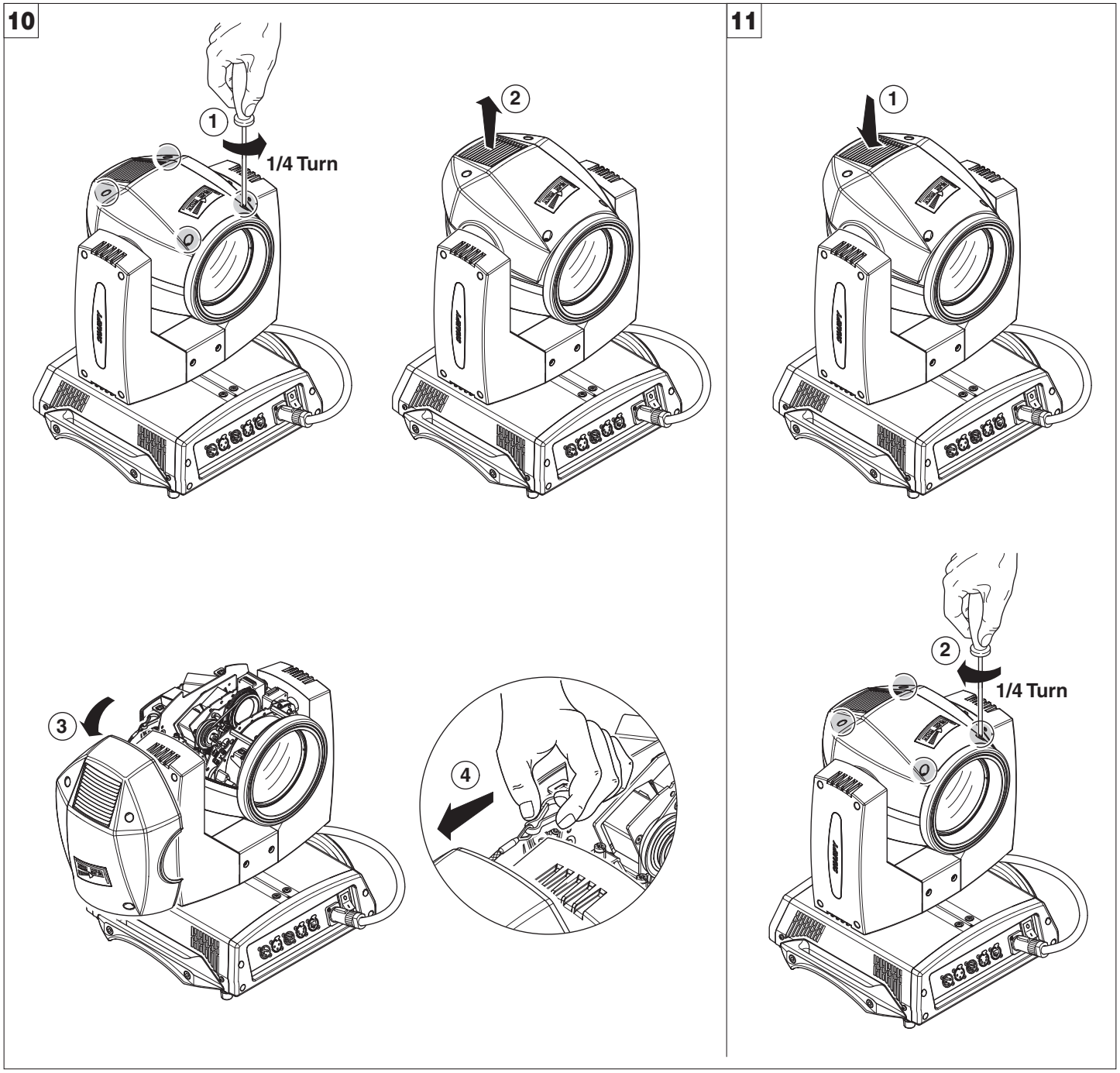
Allows you to adjust effects from the control panel to obtain perfect uniformity between the projectors.

1) Press OK - “channels” appears on the display.
2) Using the UP ⏶ and DOWN ⏷ keys, select the effect you wish to regulate.
3) Press OK and use the RIGHT ⏵, UP ⏶ and DOWN ⏷ buttons to make the adjustment by setting a value between 0 and 255.
4) Press OK to confirm the selection or LEFT ⏴ to keep current settings and return to the top level.

FACTORY DEFAULT

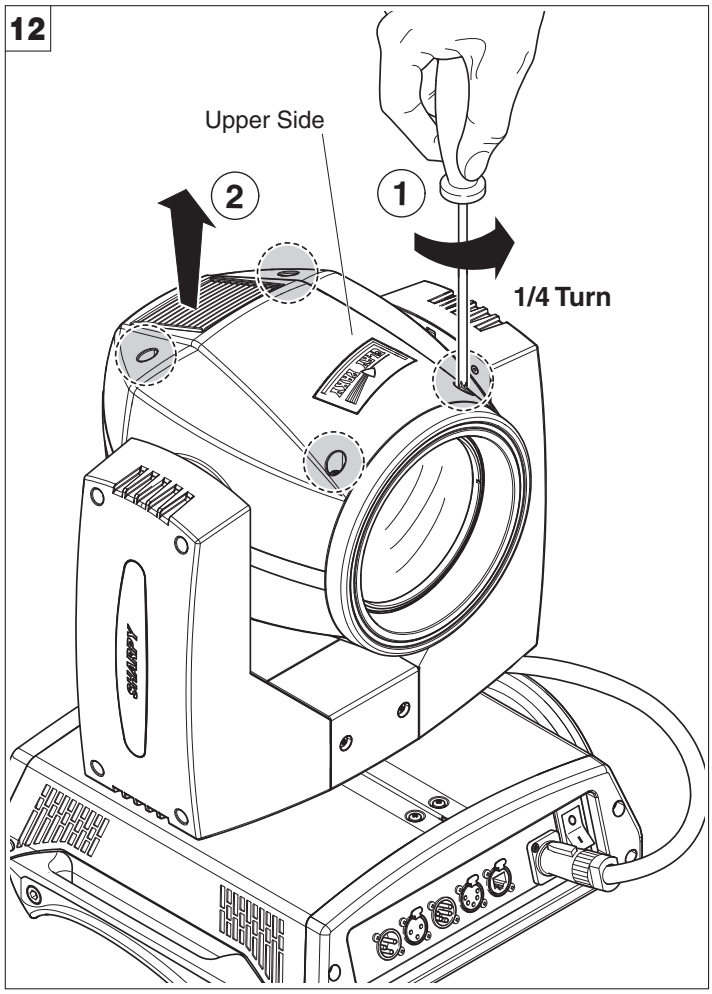
Allows you to restore default values of all channels (128).

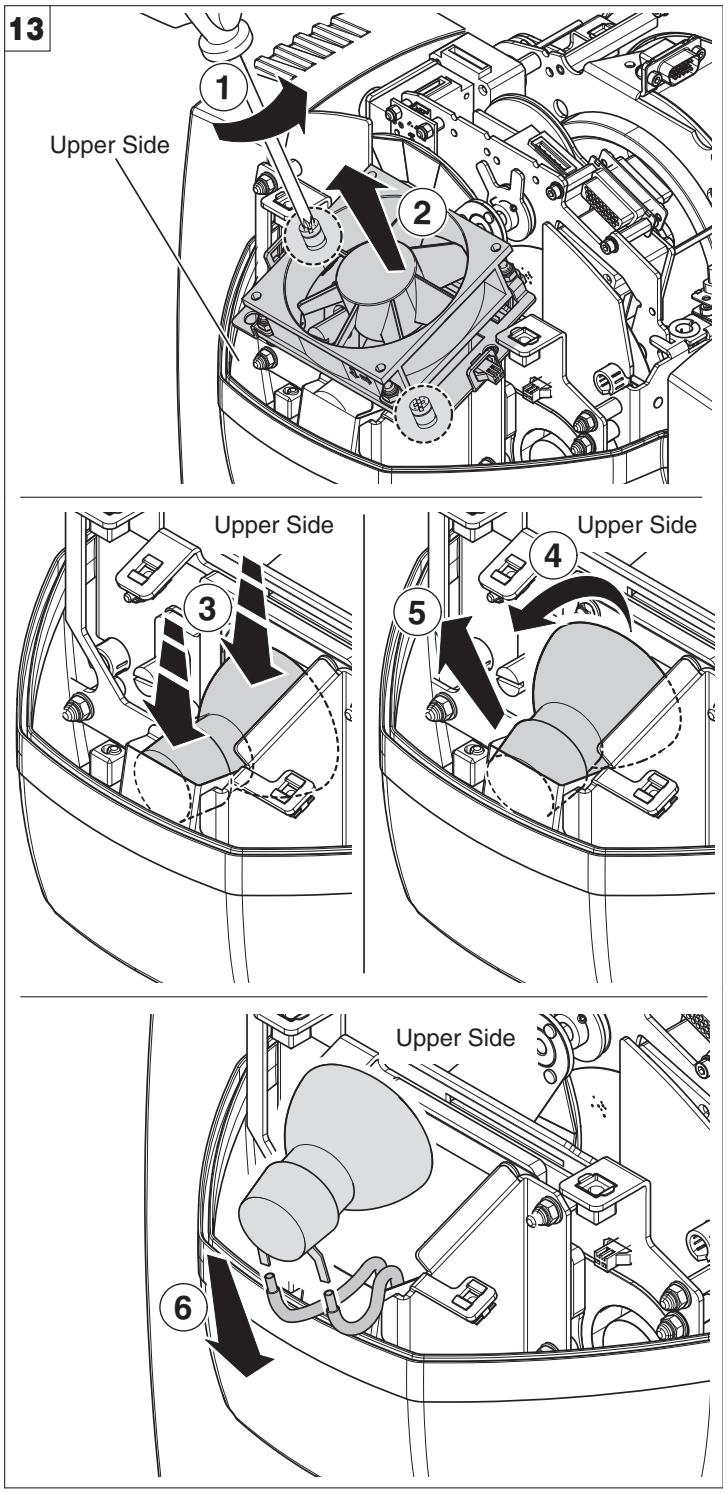
1) Press OK – a confirmation message appears on the display (Reset calibration to factory default ?).
2) Select YES to reset calibration to factory default or NO to keep the current setting and return to the top menu level.

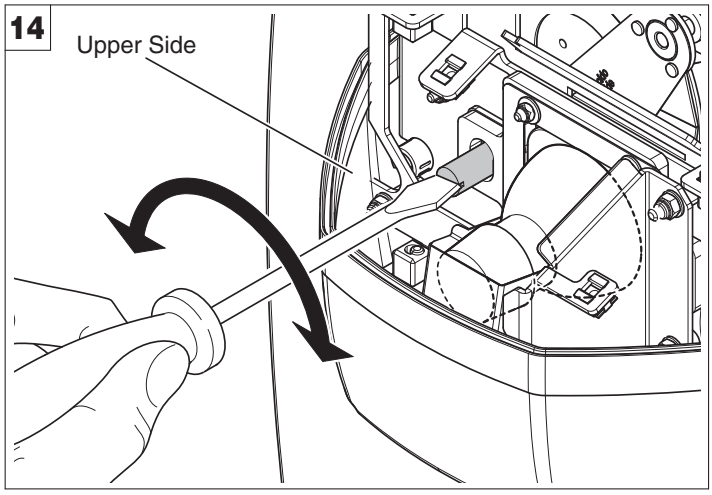


Locking and releasing Pan and Tilt movements - Refer to the instructions in the UNPACKING AND PREPARATION section.
Opening the head covers - Fig. 10.

Closing the head covers - Fig. 11.







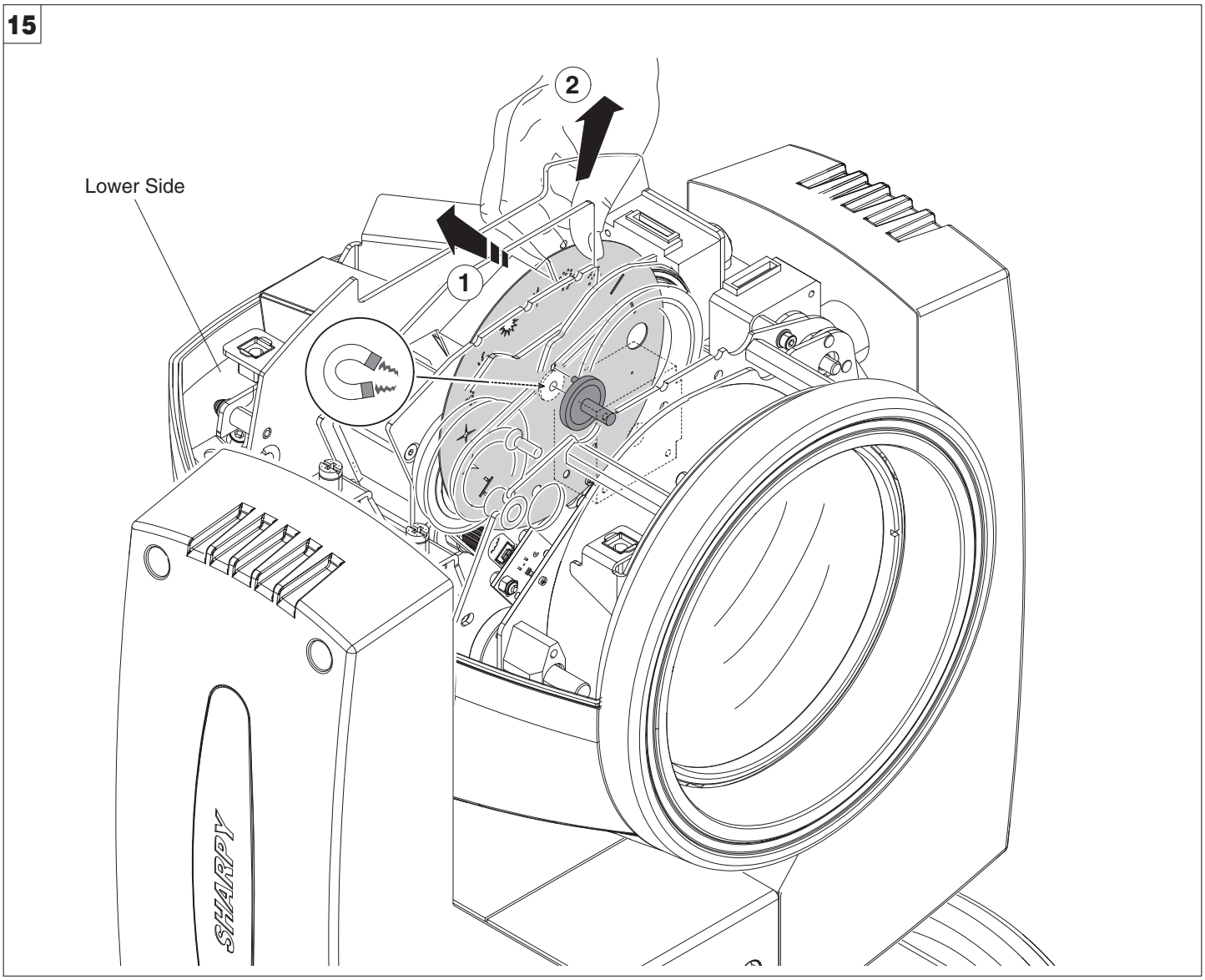
Opening and closing lamp compartment - Fig. 12

Lamp change - Fig 13
Take the new lamp out of its package and insert in the fitting.
WARNING: ***do not touch the lamp's envelope with bare hands. Should this happen, clean the bulb with a cloth soaked in alcohol and dry it with a clean, dry cloth.***

Lamp regulation - Fig. 14
To centre the lamp, turn the adjusting screw as shown in the figure.
WARNING: ***The lamp must be adjusted with the projector switched off. After adjusting, close the effects covers, switch on the projector and check that the adjustment has been correctly made. If necessary, switch off the projector, remove the effects covers and repeat lamp adjustment.***
NOTE: To adjust the lamp vertically (with regard to the Y axis) after having replaced it, it may be necessary to operate the **Calibration** in the **Menu Advanced** on the **Fixed Gobo Wheel channel**.

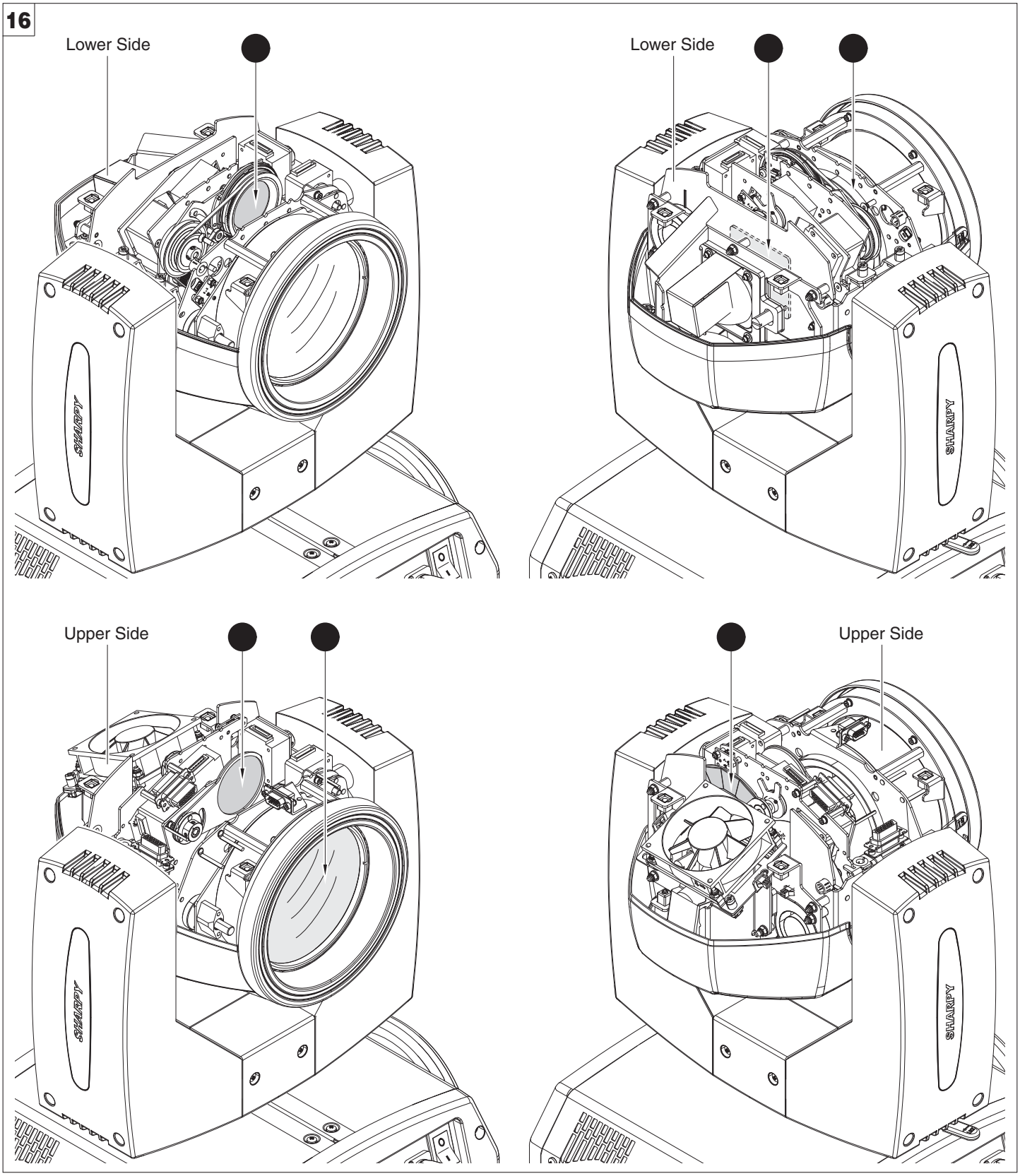
Continue →

15



Replacing fixed gobos wheel - Fig. 15
WARNING: Before using personalised gobos wheel contact Clay Paky.

16



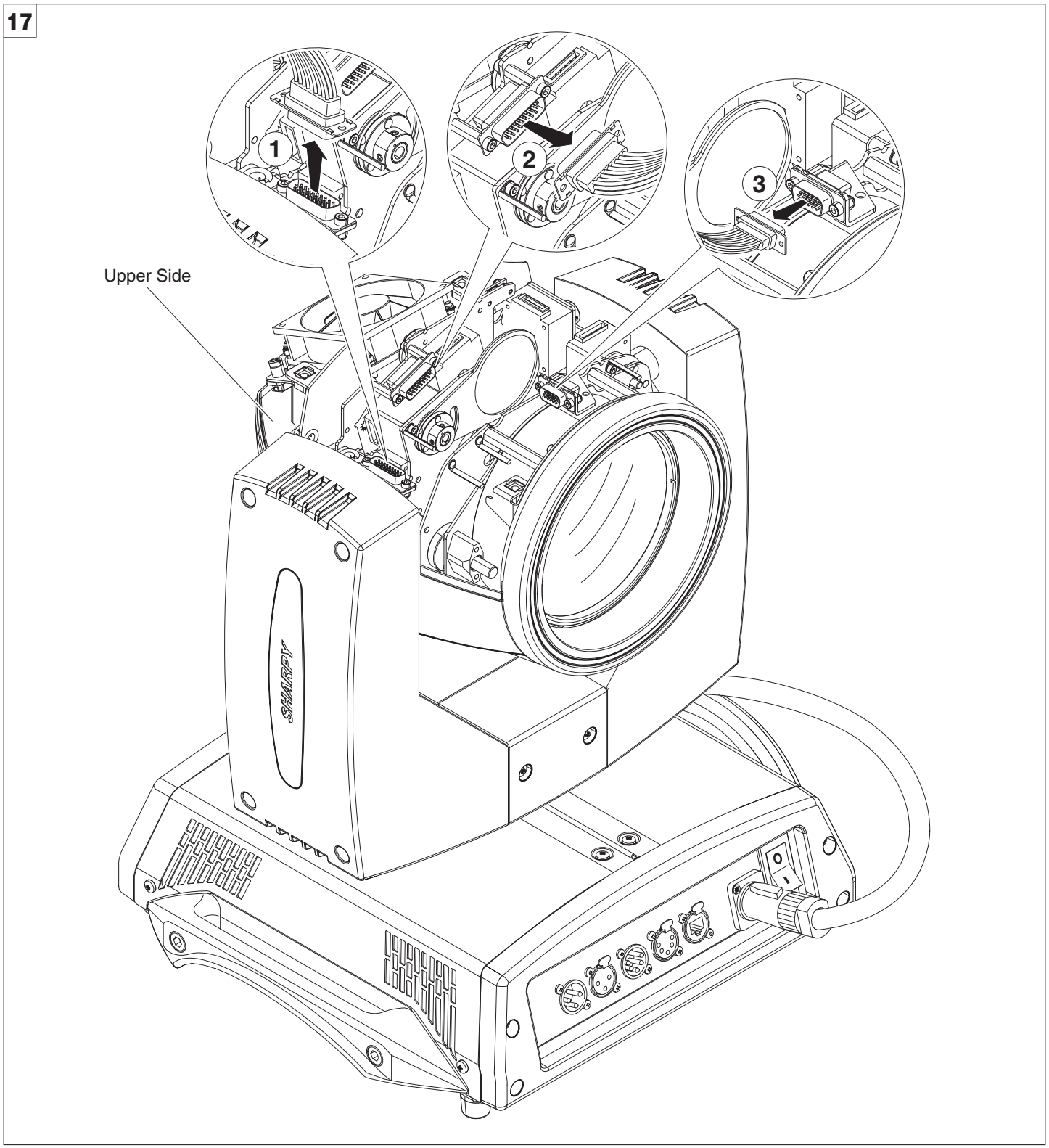
Periodical cleaning - Fig. 16

To ensure optimal operation and performance for a long time it is essential to periodically clean the parts subject to dust and grease deposits. The frequency with which the following operations are to be carried out depends on various factors, such as the amount of the effects and the quality of the working environment (air humidity, presence of dust, salinity, etc.).

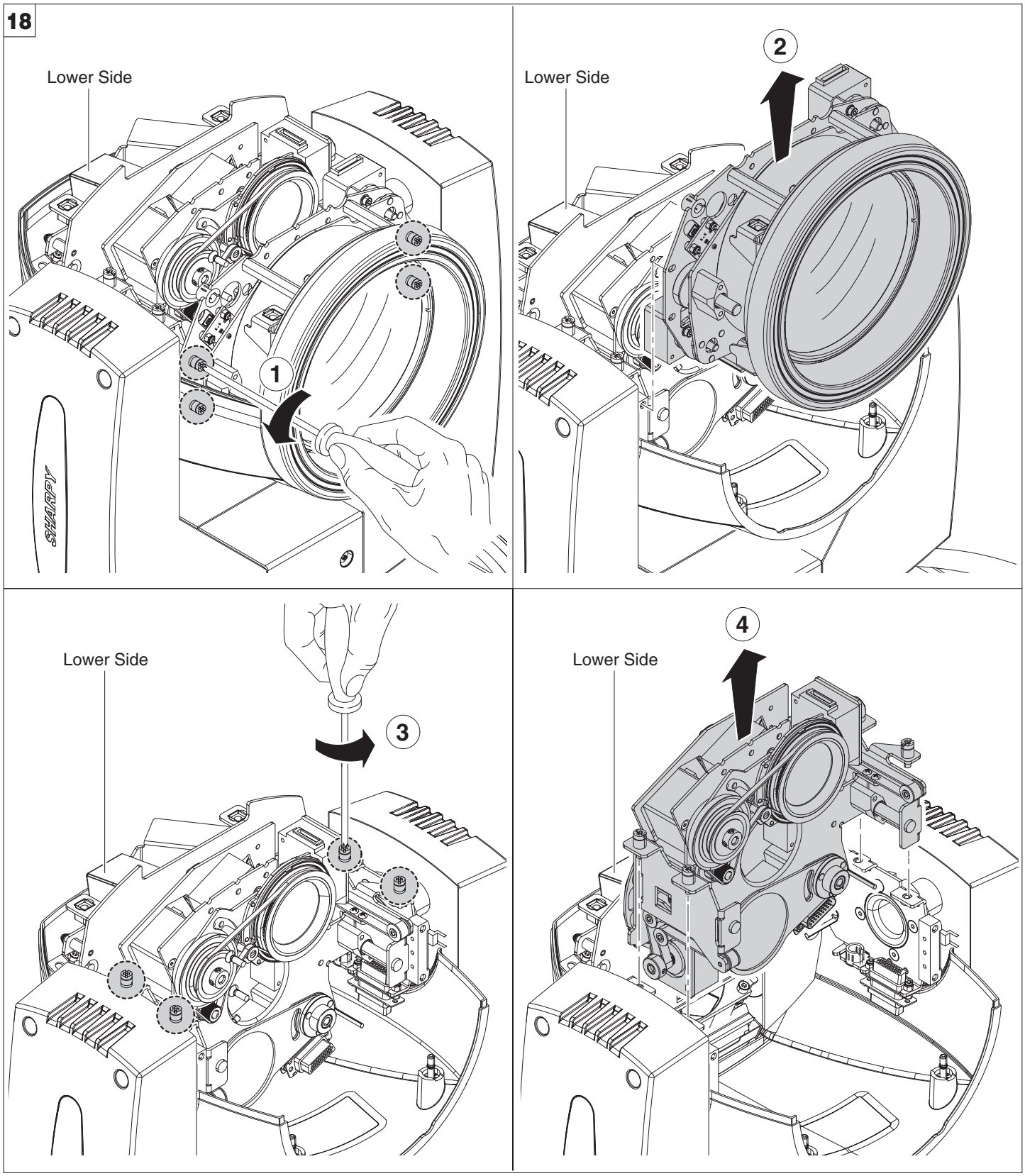
Use a soft cloth dampened with any detergent liquid for cleaning glass to remove the dirt from the reflectors and filters. It is recommended that the projector undergoes an annual service by a qualified technician for special maintenance involving at least the following operations:

- General cleaning of internal parts.
- Restoring lubrication of all parts subject to friction, using lubricants specifically supplied by Clay Paky.
- General visual check of the internal components, cabling, mechanical parts, etc.
- Electrical, photometric and functional checks; eventual repairs.

Continue →



Extraction of the effect modules: Preliminary operations - Fig. 17

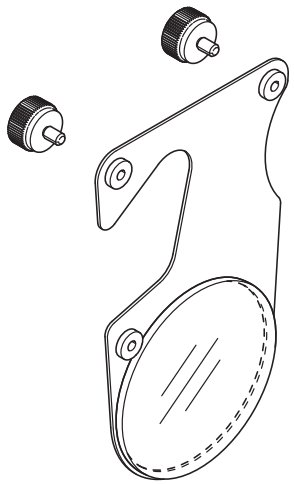


Extraction of the effect modules - Fig. 18

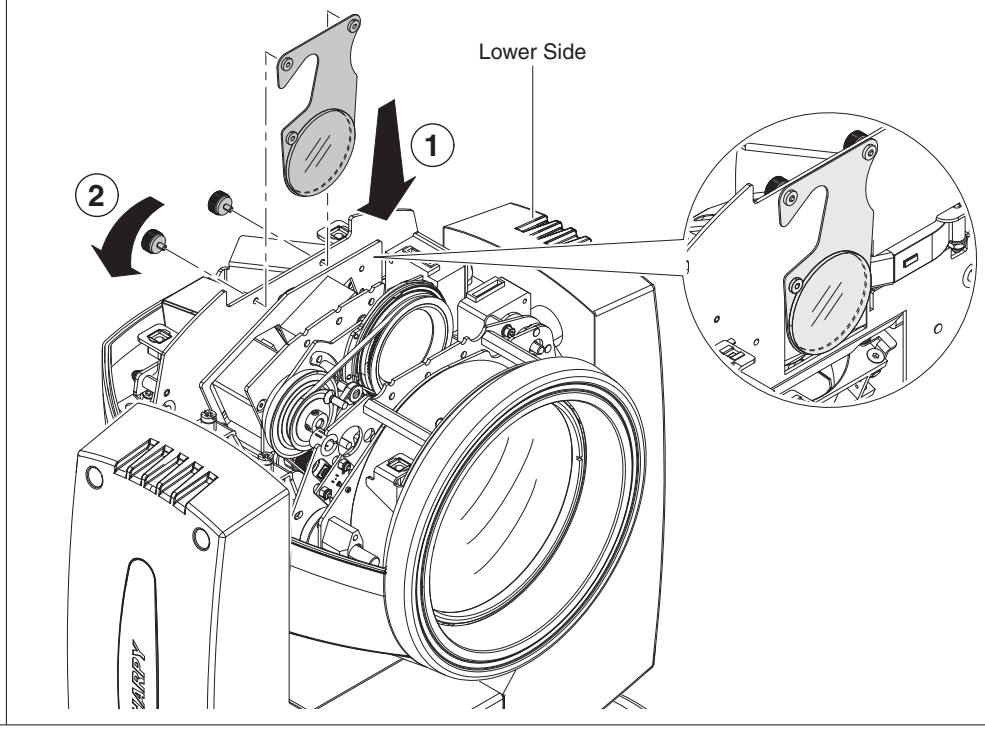
IMPORTANT: Grasp the modules using the support structure and not the details which could get damaged.

Insertion of the effect modules: Repeat the operations indicated in Fig. 17 and 18 in reverse order.

19



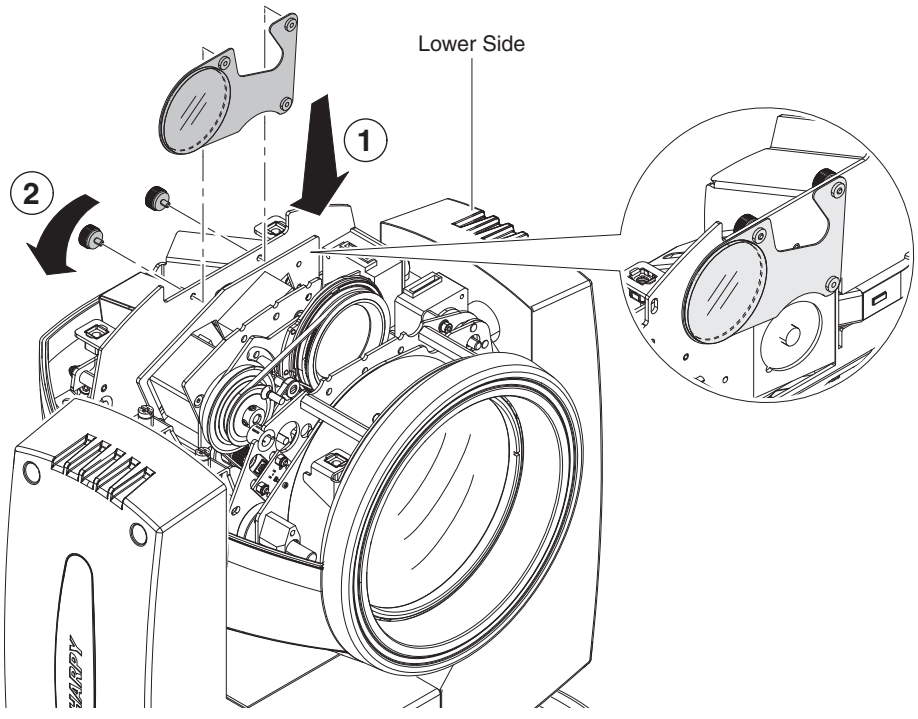
C61190



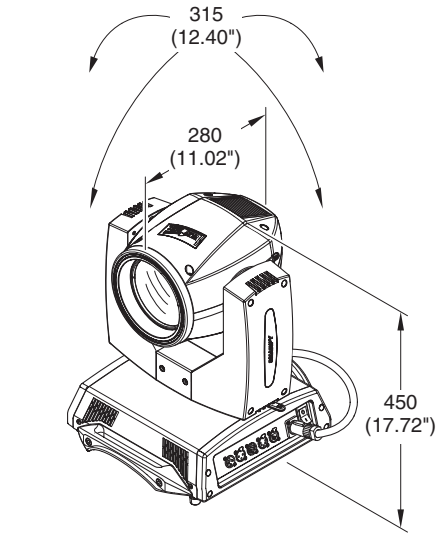
Heat screen filter - Fig. 19

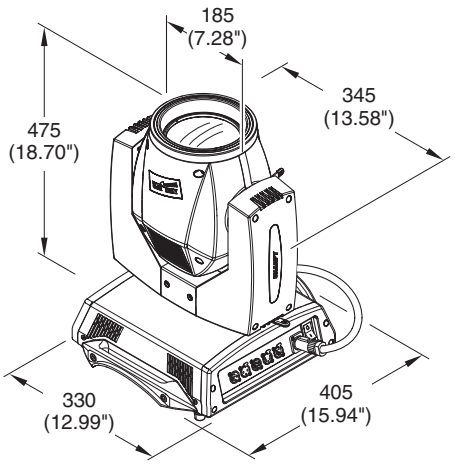
An optional filter kit is also available when the SHARPY projector is used in environments that do not meet the minimum allowed distance of **12 metres** from illuminated objects; when this kit is assembled, the projector can be used at a minimum distance of **8 metres** from illuminated objects.

20



C61190 accessory can be placed inside the projector when not in use - Fig. 20





TECHNICAL INFORMATION

Power supplies available
115/230V 50/60Hz

Input power:
350VA a 230V 50Hz.

Lamp:
Lamp system with a short arc burner in a reflector
- Type MSD Platinum 5R (L10103)
  - Output Lamp power: 189W
  - Colour temperature 8000 K
  - Average life 2000 h
  - Any working position

Motors:
13 stepper motors, operating with microsteps, totally microprocessor controlled.

Channels:
Max 20 control channels.

Zoom:
Minimum Zoom: 0°
Maximum Zoom: 3,8°

Inputs:
- DMX 512

Movable body:
- Movement by means of two stepper motors, controlled by microprocessor.
- Automatic repositioning of PAN and TILT after accidental movement not controlled by control unit.
- Travel:
  - PAN = 540°
  - TILT = 250°
- Maximum speeds:
  - PAN = 3.77 (normal) / 3.20 (fast)
  - TILT = 2.19 (normal) / 1.89 (fast)
- Resolution:
  - PAN = 2.11°
  - PAN FINE = 0.008°
  - TILT = 0.98°
  - TILT FINE = 0.004°

IP20 protection rating:
- Protected against the entry of solid bodies larger than 12mm (0.47").
- No protection against the entry of liquids.

CE Marking:
In conformity with the European Union Low Voltage
Directive 2006/95/CE and Electromagnetic compatibility
Directive 2004/108/CE.

Safety Devices:
- Bipolar circuit breaker with thermal protection.
- Automatic break in power supply in case of overheating or failed operation of cooling system.

Cooling:
Forced ventilation with axial fans.

Body:
- Aluminium structure with die-cast plastic cover.
- Two side handles for transportation.
- Device locking PAN and TILT mechanisms for transportation and maintenance.

Working position
Functioning in any position.

Weights:
about 16 Kg (35lbs 3ozs).

CAUSE AND SOLUTION OF PROBLEMS

THE PROJECTOR WILL NOT SWITCH ON	ELECTRONICS NON-OPERATIONAL	DEFECTIVE PROJECTION	REDUCED LUMINOSITY	***POSSIBLE CAUSES***	***CHECKS AND REMEDIES***
●				No mains supply.	Check the power supply voltage.
●			●	Lamp exhausted or defective.	Replace the lamp. (See instructions).
	●			Signal transmission cable faulty or disconnected.	Replace the cables.
	●			Incorrect addressing.	Check addresses (see instructions).
	●			Fault in the electronic circuits.	Call an authorised technician.
		●		Lenses or reflector broken	Call an authorised technician.
		●	●	Dust or grease deposited.	Clean (see instructions).

SHARPY

CHANNEL	CHANNEL MODE	
	STANDARD	VECTOR
1	COLOUR WHEEL	COLOUR WHEEL
2	STOP / STROBE	STOP / STROBE
3	DIMMER	DIMMER
4	STATIC GOBO CHANGE	STATIC GOBO CHANGE
5	PRISM INSERTION	PRISM INSERTION
6	PRISM ROTATION	PRISM ROTATION
7	EFFECTS MOVEMENT	EFFECTS MOVEMENT
8	FROST	FROST
9	FOCUS	FOCUS
10	PAN	PAN
11	PAN FINE	PAN FINE
12	TILT	TILT
13	TILT FINE	TILT FINE
14	FUNCTION	FUNCTION
15	RESET	RESET
16	LAMP CONTROL (with Option "Lamp Dmx" ON)	LAMP CONTROL (with Option "Lamp Dmx" ON)
17		PAN - TILT TIME
18		COLOUR TIME
19		BEAM TIME
20		GOBO TIME

NOTE: On conclusion of resetting in case of absence of DMX signal, Pan & Tilt move to the "Home" position (Pan 50% - Tilt 50%) all the others channels stay at 0%.

• COLOUR WHEEL - channel 1

BIT	%	EFFECT
255	100	FAST ROTATION (160 rpm)
128	50.0	SLOW ROTATION
124	48.7	BLUE + WHITE
120	47.0	BLUE
116	45.5	CTB 8000 + BLUE
111	43.7	CTB 8000
107	42.0	CTO 190 + CTB 8000
103	40.5	CTO 190
99	38.7	CTO 260 + CTO 190
94	36.7	CTO 260
90	35.0	CYAN + CTO 260
86	33.7	CYAN
82	32.0	MAGENTA + CYAN
77	30.0	MAGENTA
73	28.7	YELLOW + MAGENTA
69	27.0	YELLOW
64	25.0	PINK + YELLOW
60	23.7	PINK
56	22.0	LAVENDER + PINK
52	20.5	LAVENDER
47	18.2	LIGHT GREEN + LAVENDER
43	16.7	LIGHT GREEN
39	15.0	GREEN + LIGHT GREEN
35	13.7	GREEN
30	11.7	AQUAMARINE + GREEN
26	10.0	AQUAMARINE
22	8.7	ORANGE + AQUAMARINE
18	7.0	ORANGE
13	5.0	RED + ORANGE
9	3.7	RED
5	2.0	WHITE + RED
0	0.0	WHITE

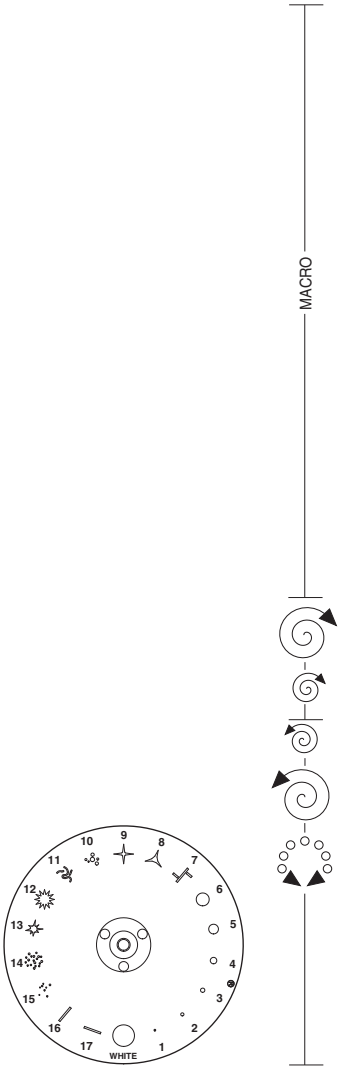
• STOP / STROBE - channel 2

BIT	%	EFFECT
252 - 255	98.7 - 100	OPEN
239 - 251	93.7 - 98.2	RANDOM FAST STROBE
226 - 238	88.7 - 93.2	RANDOM MEDIUM STROBE
213 - 225	83.7 - 88.2	RANDOM SLOW STROBE
208 - 212	81.7 - 83.2	OPEN
207	81.2	FAST PULSATION
108	42.5	SLOW PULSATION
104 - 107	41.0 - 42.0	OPEN
103	40.5	FAST STROBE (12 flash/sec)
4	1.7	SLOW STROBE (1 flash/sec)
0 - 3	0.0 - 1.2	CLOSED

• DIMMER - channel 3

BIT	%	EFFECT
255	100	
0	0.0	

• STATIC GOBO CHANGE - channel 4



BIT	%	EFFECT
255	100	GOBO 16 SHAKE FAST SPEED
250	98.0	GOBO 16 SHAKE, SLOW SPEED
249	97.5	GOBO 15 SHAKE FAST SPEED
244	95.5	GOBO 15 SHAKE, SLOW SPEED
243	95.0	GOBO 14 SHAKE FAST SPEED
237	93.0	GOBO 14 SHAKE, SLOW SPEED
236	92.5	GOBO 13 SHAKE FAST SPEED
231	90.5	GOBO 13 SHAKE, SLOW SPEED
230	90.0	GOBO 12 SHAKE FAST SPEED
224	88.0	GOBO 12 SHAKE, SLOW SPEED
223	87.5	GOBO 11 SHAKE FAST SPEED
218	85.5	GOBO 11 SHAKE, SLOW SPEED
217	85.0	GOBO 10 SHAKE FAST SPEED
212	83.2	GOBO 10 SHAKE, SLOW SPEED
211	83.0	GOBO 9 SHAKE FAST SPEED
205	80.5	GOBO 9 SHAKE, SLOW SPEED
204	80.0	GOBO 8 SHAKE FAST SPEED
199	78.0	GOBO 8 SHAKE, SLOW SPEED
198	77.5	GOBO 7 SHAKE FAST SPEED
192	75.0	GOBO 7 SHAKE, SLOW SPEED
191	74.7	GOBO 6 SHAKE FAST SPEED
186	73.0	GOBO 6 SHAKE, SLOW SPEED
185	72.5	GOBO 5 SHAKE FAST SPEED
180	70.5	GOBO 5 SHAKE, SLOW SPEED
179	70.0	GOBO 4 SHAKE FAST SPEED
173	68.0	GOBO 4 SHAKE, SLOW SPEED
172	67.5	GOBO 3 SHAKE FAST SPEED
167	65.5	GOBO 3 SHAKE, SLOW SPEED
166	65.0	GOBO 2 SHAKE FAST SPEED
160	63.0	GOBO 2 SHAKE, SLOW SPEED
159	62.5	FAST ROTATION
118	46.2	SLOW ROTATION
114-117	44.7-46.0	STOP
113	44.2	SLOW ROTATION
72	28.2	FAST ROTATION
68-71	26.7-28.0	GOBO 17
64-67	25.0-26.2	GOBO 16
60-63	23.7-24.7	GOBO 15
56-59	22.0-23.2	GOBO 14
52-55	20.5-21.7	GOBO 13
48-51	18.7-20.0	GOBO 12
44-47	17.0-18.2	GOBO 11
40-43	15.5-16.7	GOBO 10
36-39	14.0-15.0	GOBO 9
32-35	12.5-13.7	GOBO 8
28-31	11.0-12.0	GOBO 7
24-27	9.5-10.5	GOBO 6
20-23	8.0-9.0	GOBO 5
16-19	6.2-7.5	GOBO 4
12-15	4.7-6.0	GOBO 3
8-11	3.2-4.2	GOBO 2
4-7	1.7–3.0	GOBO 1
0-3	0.0–1.2	WHITE

• PRISM INSERTION - channel 5

BIT	%	EFFECT
255	100	
		PRISM INSERTED
128	50.0	
127	49.7	
		PRISM EXCLUDED
0	0.0	

• PRISM ROTATION - channel 6

BIT	%	EFFECT
255	100	FAST ROTATION (120 rpm)
193	75.5	SLOW ROTATION (3 rph)
191 - 192	74.7 - 75.0	STOP
190	74.2	SLOW ROTATION (3 rph)
128	50.0	FAST ROTATION (120 rpm)
127	49.7	POSITION 540°
105	41.7	POSITION 450°
84	33.0	POSITION 360°
63	24.7	POSITION 270°
42	16.2	POSITION 180°
21	8.2	POSITION 90°
0	0.0	POSITION 0°

Continue →

• EFFECTS MOVEMENT - channel 7

BIT	%	EFFECT
255	100	
0	0.0	

• FROST - channel 8

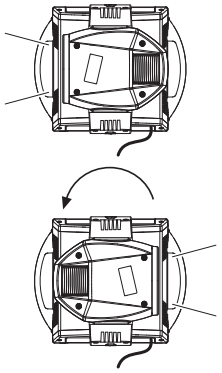
BIT	%	EFFECT
255	100	FROST INSERTED
0	0.0	FROST EXCLUDED

• FOCUS - channel 9

BIT	%	EFFECT
255	100	NEAR
0	0.0	DISTANT

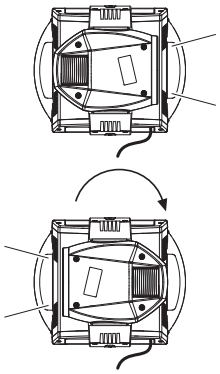
• PAN - channel 10

Operation with option InvertPan ⇕ Off
(Tilt conventionally represented at 14% and option Invert Tilt ⇕ Off)



BIT	%
255	100
0	0.0

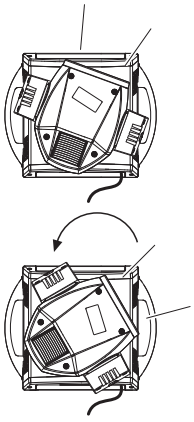
Operation with option InvertPan ⇕ On
(Tilt conventionally represented at 14% and option Invert Tilt ⇕ Off)



BIT	%
255	100
0	0.0

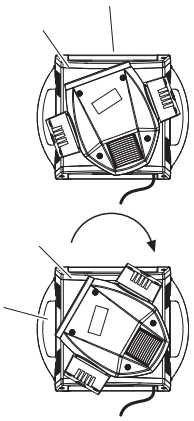
• PAN FINE - channel 11

Operation with option InvertPan ⇕ Off
(Tilt conventionally represented at 14% and option Invert Tilt ⇕ Off)



BIT	%
255	100
0	0.0

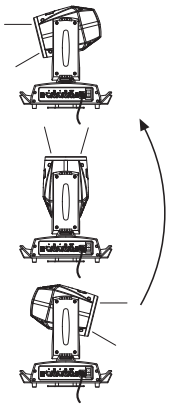
Operation with option InvertPan ⇕ On
(Tilt conventionally represented at 14% and option Invert Tilt ⇕ Off)



BIT	%
255	100
0	0.0

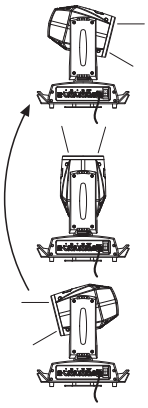
• TILT - channel 12

Operation with option Invert Tilt ⇕ Off
(Pan conventionally represented at 0% and option Invert Pan ⇕ Off)



BIT	%
255	100
128	50.0
0	0.0

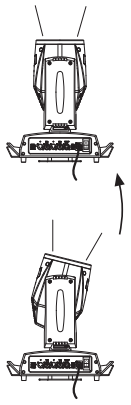
Operation with option Invert Tilt ⇕ On
(Pan conventionally represented at 0% and option Invert Pan ⇕ Off)



BIT	%
255	100
128	50.0
0	0.0

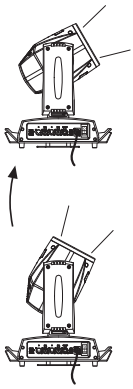
• TILT FINE - channel 13

Operation with option Invert Tilt ⇕ Off
(Pan conventionally represented at 0% and option Invert Pan ⇕ Off)



BIT	%
255	100
0	0.0

Operation with option Invert Tilt ⇕ On
(Pan conventionally represented at 0% and option Invert Pan ⇕ Off)



BIT	%
255	100
0	0.0

• FUNCTION - channel: 14

BIT	%	EFFECT
255	100	
		UNUSED RANGE
63	24.7	
51-62	20.0-24.2	LINEAR (Default) — DIMMER CURVE FUNCTION
38-50	14.7-19.5	CONVENTIONAL — DIMMER CURVE FUNCTION
25-37	9.7-14.2	NORMAL — PAN-TILT FUNCTION
12-24	4.7-9.5	FAST (Default) — PAN-TILT FUNCTION
0-11	0.0-4.2	UNUSED RANGE

The functions are actived passing through the unused range and staying 5 seconds in necessary level.

• RESET - channel: 15

BIT	%	EFFECT
255	100	COMPLETE RESET Complete reset is activated passing throug the unused range and staying 5 seconds in complete reset levels.
128	50.0	COMPLETE RESET
127	49.7	PAN / TILT RESET Pan / Tilt reset is activated passing throug the unused range and staying 5 seconds in Pan / Tilt reset levels.
77	30.0	PAN / TILT RESET
76	29.7	EFFECTS RESET Effects reset is activated passing throug the unused range and staying 5 seconds in Effects reset levels.
26	10.0	EFFECTS RESET
25	9.7	UNUSED RANGE
0	0.0	

• LAMP CONTROL (only with option LAMP DMX On) - channel: 16

IMPORTANT: SHARPY is not provided with hot restrike ignition

BIT	%	EFFECT
255	100	LAMP ON Lamp switch-on passing through the unused range and staying 5 sec in Lamp ON levels.
101	39.5	LAMP ON
100	39.0	LAMP OFF Lamp switch off passing throug the unused range and staying 5 s in Lamp OFF levels.
26	10.0	LAMP OFF
25	9.7	UNUSED RANGE
0	0.0	

Continue ➔

TIMING CHANNELS

	Timing Channel	Channel function
17	Pan - Tilt time	Pan - Tilt - (Pan fine - Tilt fine)
18	Colour time	Colour wheel
19	Beam time	Dimmer - Frost - Prism
20	Gobo time	Static Gobo

TIME TABLE

BIT	Seconds
0	Full
1	0.2
2	0.4
3	0.6
4	0.8
5	1
6	1.2
7	1.4
8	1.6
9	1.8
10	2
11	2.2
12	2.4
13	2.6
14	2.8
15	3
16	3.2
17	3.4
18	3.6
19	3.8
20	4
21	4.2
22	4.4
23	4.6
24	4.8
25	5
26	5.2
27	5.4
28	5.6
29	5.8
30	6
31	6.2
32	6.4
33	6.6
34	6.8
35	7
36	7.2
37	7.4
38	7.6
39	7.8
40	8
41	8.2
42	8.4

BIT	Seconds
43	8.6
44	8.8
45	9
46	9.2
47	9.4
48	9.6
49	9.8
50	10
51	10.2
52	10.4
53	10.6
54	11
55	
56	12
57	
58	13
59	
60	14
61	
62	
63	15
64	
65	16
66	
67	
68	17
69	
70	18
71	
72	
73	19
74	
75	20
76	
77	
78	21
79	
80	
81	22
82	
83	23
84	
85	

BIT	Seconds
86	24
87	
88	25
89	
90	
91	26
92	
93	27
94	
95	
96	28
97	
98	29
99	
100	
101	30
102	
103	
104	31
105	
106	32
107	
108	
109	33
110	
111	34
112	
113	
114	35
115	
116	36
117	
118	
119	37
120	
121	38
122	
123	
124	39
125	
126	
127	40
128	

BIT	Seconds
129	41
130	
131	
132	42
133	
134	43
135	
136	
137	44
138	
139	45
140	
141	
142	46
143	
144	47
145	
146	
147	48
148	
149	49
150	
151	
152	50
153	
154	
155	51
156	
157	52
158	
159	
160	53
161	
162	54
163	
164	
165	55
166	
167	56
168	
169	
170	57
171	

BIT	Seconds
172	58
173	
174	
175	59
176	
177	
178	60
179	
180	65
181	
182	
183	70
184	
185	75
186	
187	
188	80
189	
190	85
191	
192	
193	90
194	
195	95
196	
197	
198	100
199	
200	110
201	
202	
203	120
204	
205	
206	130
207	
208	140
209	
210	
211	150
212	
213	160
214	
215	

BIT	Seconds
216	170
217	
218	180
219	
220	
221	190
222	
223	200
224	
225	
226	210
227	
228	
229	220
230	
231	230
232	
233	
234	240
235	
236	250
237	
238	
239	260
240	
241	270
242	
243	
244	280
245	
246	290
247	
248	
249	300
250	
251	310
252	
253	
254	
255	Follow cue Data

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